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ABSTRACT

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Disordered Eating in College Students:
A comparison between American and Japanese college students.

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Abstract

This study investigated the differences in disordered eating behaviors and attitudes in Japanese and American college students. The results of a 2x2 Anova revealed a significant nationality difference. American students reported more disordered eating symptoms than Japanese students ($p < .01$). This may be due to a convergence of biological, social, and dietary factors. Maternal influence may also be an influential factor; the results indicated that American mothers were perceived to display more eating disordered behaviors and attitudes than Japanese mothers ($p < .01$).

In order to evaluate whether self-report response style accounted for the observed difference, separate analyses of scores on the high and low socially desirable EAT items were performed. The results of these analyses paralleled those for the composite EAT, suggesting that differential social desirability responding did not mediate the nationality difference.

Disordered Eating in College Students:

A comparison between American and Japanese Students.

Eating disorders are a common problem in college students in many countries. Anorexia nervosa and bulimia are serious problems which are increasing both in Japan and in the U.S. This study investigated the cultural differences in frequencies of disordered eating behaviors in these two countries. Also, perceptions of the disordered eating habits of mothers were evaluated across the cultures.

Previous studies have shown significant differences in eating disorder among ethnic groups and cultures. A study done in England (Dolan, B. et al, 1990) compared three ethnic groups, Caucasian, Afro-Caribbean and Asian. The results showed that the Asian women exhibited more disordered eating behaviors and attitudes than other groups. However, in this study, the participants being compared were all British citizens, despite their different ethnic backgrounds. It is possible that the higher symptom level observed among British Asian participants would not generalize to their nonimmigrant Asian counterparts. The British Asian women were living as members of a minority in England, which might be expected to be associated with increased public self-consciousness and heightened body awareness. Such experience may have increased their Asian participants' risk of disordered eating. In this case, the higher level of eating-

related symptoms in British Asian women would not be expected among Asian women living in Asia. Assessing ethnic differences in eating disorders within a particular country often confounds nationality and minority status effects. In order to disentangle nationality from minority effects, it is necessary to examine ethnic samples living in their separate, native countries. The relevance of this study to the present investigation is further limited by its failure include Oriental subjects (the British Asian women were from India, Pakistan, Sri Lanka and East African Asia).

Another study, which compared Egyptian and British subjects drawn from their separate countries of origin, found that Arab women scored significantly lower on the eating disorder questionnaires than women from Western culture(1991). This study suggests the possibility that Western women display greater eating problems than those from other cultures. However, no study to date has examined eating disorder differences between Oriental and Caucasian women, nor differences between Japanese and U.S. women. The present investigation assessed whether such differences exist.

Cross-cultural comparative studies should reflect a sensitivity to national differences in how scale items are handled by participants from various countries. Differential reluctance to endorse socially undesirable behaviors and attitudes can create the artifactual appearance of national

differences where none really exist. Previous studies have found some communication style differences between Americans and Japanese in depth of disclosure, physical contact, and defensive strategies (Barnlund, 1975). A cross-cultural study by Barnlund and Alaki (1985), showed differences in public verbal emotional expressivity. Their findings are consistent with the possibility that there are general self disclosure differences across the countries. In the Barnlund and Alaki study, differences in complimenting behavior were demonstrated. Japanese students were less likely to display verbal forms of complimenting, however, they were more likely to engage in nonverbal, indirect forms of complimenting. These results are in keeping with the distinctive general dynamics of the two countries. Japanese culture stresses more harmonious relations among groups, whereas U.S. culture stresses the value of individual differences. Rates of verbal complimenting may be lower in Japan because direct verbal compliments are believed to invite disruptive social comparisons, which might heighten awareness of individual differences and reduce group cohesion. If comfort with the comparison process varies across the two countries, when subjects in the two countries are presented with self report measures, the differential response to the underlying social comparisons inherent in the self report process could create artifactual differences across these national groups.

In order to assess this possibility in this study, after

initial analysis of the overall measure for disordered eating, separate analyses of low and high socially desirable subscale items were conducted. This enabled an exploration of possible differential willingness to admit socially unacceptable forms of experience across the two countries.

Method

Subjects:

Eighty-nine undergraduate students enrolled in introductory psychology at Ursinus College (44 males and 45 females) served as American subjects. The mean age was 19 years with a range from 17 to 22. The Japanese subjects were 98 undergraduate students at Tohokugakuin University. There were 39 male and 60 female subjects with a mean age of 18.5 years, ranging from 18 to 20 years.

Procedure:

The Eating Attitudes Test (EAT) (Garner and Garfinkel, 1979), consisting of 40 self-report Likert scale items, was used to measure disordered attitudes and behaviors towards eating and food. The EAT has been found to have satisfactory reliability and validity in samples drawn from populations including those with clinical eating disorders (Garner and Garfinkel, 1979; Gross, Rosen, Leitenberg, and Willmuth, 1986; and Carrot, Lang, Esteur, Pellet, Gauthy and Wagon 1987). Nine additional questions

were included which measure subjects' perception of maternal weight conflicts (Feilke and Chambliss, 1992). These items had been derived from the EAT and reworded to reflect perceived maternal experience. For example, one item reads "My mother is aware of the calorie content of foods she eats."

All 49 questions were translated into Japanese by the first author for administration to the Japanese sample.

Results

Scores were calculated for each participant on the summary measure of disordered eating behaviors and attitudes (EAT). Scores on the EAT were modified to apply equally to male and female participants by eliminating one item concerning menstruation (EAT-R). A 2x2 Anova (nationality by sex) on the EAT-R scores revealed both a significant effect for nationality ($F=7.32$; $df=1$; $p<.01$) and for sex ($F=53.67$; $df=1$; $p<.001$). There was no significant interaction effect. American students reported significantly more disordered eating behaviors and attitudes than Japanese students ($X=99.03$, $s.d.=25.81$, $n=73$ versus $X=92.33$, $s.d.=21.61$, $n=91$). Females were significantly more likely to report disordered eating behaviors and attitudes than males ($X=105.52$, $s.d.=23.79$, $n=91$ versus $X=82.59$, $s.d.=16.49$, $n=73$).

In order to assess whether social desirability responding mediated the nationality effect, items on the EAT-R were divided

according to their social acceptability, creating high and low social desirability EAT-R subscales. Scores on these high social desirability (HSD, 17 items), and low social desirability (LSD, 22 items) subscales were calculated for each subject. Anova (2x2) on both the HSD and LSD measures revealed main effect identical to those obtained on the overall EAT-R, and a similar absence of an interaction effect.

For each subject, scores were calculated on a scale comprised of the 9 items reflecting subjects' perceptions of their mothers' disordered eating. A 2x2 Anova (nationality x sex) showed a significant nationality effect ($F=9.56$, $df=1$, $p<.01$), indicating greater perceived disordered eating in American mothers than Japanese mothers ($X=22.15$, $s.d.=7.08$, $n=80$ versus $X=16.04$, $s.d.=7.21$, $n=95$). No significant sex nor interaction effects were obtained.

Discussion

The results obtained in this cross-cultural study indicate that American college students describe both themselves and their mothers as having more problems associated with eating disorders than do their Japanese counterparts. This distinction did not seem attributable to a differential willingness to endorse socially undesirable characteristics; a consistent nationality effect was found on items of both high and low social desirability.

The higher level of disordered eating attitudes and behavior found in the American sample than in the Japanese sample may be due to a convergence of various social, biological, and dietary factors operating differently across the two countries. It is possible that relative to the Japanese, Americans are more preoccupied with achieving a thin ideal body image and display more eating-related distortions as a result of this overvaluation of thinness. However, this notion is contradicted by anecdotal reports of strongly critical attitudes toward obesity in Japan. Furthermore, the relative rarity of obesity in Japan challenges the idea that being overweight is more normative and acceptable in that country than in the U.S. In fact, if social reaction to excessive body weight differs across the cultures, it may actually be the case that the Japanese respond more punitively than Americans.

Obesity is viewed as more deviant in Japan than in the U.S., in part because statistically it is more abnormal. Because it is less prevalent, it is probably more salient and attracts greater negative attention. In addition to having more stringent weight norms, the Japanese conceive of obesity as the result of an individual's failure to maintain self control. As a consequence, the culture is somewhat less forgiving of those who are obese. It is interesting to note that despite these high social sanctions against obesity, and a virtual cultural demand for thinness, fewer Japanese than American participants showed symptoms of

eating disorders in this study.

This challenges the widely held assumption that social pressures forcing conformity to a slim ideal in and of themselves are conducive to the development of distorted eating attitudes and behaviors. Apparently in Japan, the social demand for thinness is met without a pathological response (or at least without the

pathological responses being assessed by the EAT questionnaire). This may be due to biological and dietary factors operating in Japan. Increasingly, research is showing how body weight is powerfully shaped by physiological processes that vary widely across the population. While the role of genetic determinants of obesity has yet to be fully elucidated, it is clear that inherited constitutional factors contribute to a vulnerability to obesity. The fact that the Oriental population of Japan represents a more homogeneous genetic pool raises the possibility that the relative scarcity of cases of obesity in Japan is due to a greater prevalence of the biological characteristics favoring normal weight. If the metabolic and appetitive processes of Orientals are more homogeneous, and less likely to subtend obesity, than actualizing the slim ideal would generally be more feasible for Japanese individuals.

Another source of the nationality difference might involve the vast dietary distinctions between Japan and the U.S. Generally, Japanese consume a lower fat diet and are more

nutrition-conscious. A wider variety of attractive, appealing low calorie, low fat foods is available in Japan than in the U.S. These alternatives may make it easier for Japanese to maintain an ideal weight without resorting to unhealthful dieting practices. This might explain in part why Japan participants were less likely to indicate use of extreme measures of weight loss than American subjects.

In the absence of many cross-cultural studies, this analysis primarily derived from conjecture. Further research is needed to evaluate the various social, biological, and dietary explanations offered herein. If future evidence substantiates the notion that the Japanese culture is more successful in fostering healthful body weight through a combination of social sanctions and dietary practices, those in the U.S. might benefit from reconsidering the assumption that social criticism of obesity, and blaming obesity on the lack of individual self restraint, are pathogenic and contribute to increasing rates of eating disorders. It may be that an ambivalent social stance, that vacillates between critical, harsh judgement and sympathetic exoneration of the obese (similar to that often encountered in the U.S.) is actually most likely to produce distorted eating habits. Such a stance engenders self hatred, but does not always foster a committed sense of personal responsibility for one's eating and exercise choices.

Americans might profit from adoption of a diet more similar

to that of the Japanese. In fact, several health organizations in the U.S. have already initiated efforts to decrease Americans' fat consumption, and to increase intake of fruits and vegetables. The comparatively low rate of eating disordered behavior in Japan found in the present study suggests that such dietary changes could facilitate attainment of desired body weight without use of extreme, unhealthful measures.

Before accepting these extrapolations, it is necessary to consider a cautionary note. Our ability to generalize from the Japanese to the American situation is limited to the extent that the two countries differ greatly in terms of cultural and probably also biological homogeneity. To the extent that the homogeneous genetic factors discussed earlier mediate Japanese success in maintaining socially reinforced thinness, it may be that the social factors that operate benignly or even advantageously in Japan (on a population minimally predisposed to obesity) may have very different effects in the U.S. (where greater weight-related genetic heterogeneity may exist). It may be that sanctions against obesity unfairly disadvantage the minority of Americans with a strong biological propensity to obesity. For them, the culture's requirement of thinness may be largely unrealistic, and disordered eating attitudes and behaviors may be the predictable consequence of a society that requires the impossible from a (biological) minority of its members.

Future comparative studies might examine the biological, social, and dietary factors implicated in this pilot investigation. This could permit assessment of how these variables interact to produce the observed nationality differences.

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